What is claimed is:

1. A method for identifying a candidate therapeutic for fat reduction, which comprises:

(a) introducing a test molecule to a system which comprises a nucleic acid comprising a PLA2G1B nucleotide sequence selected from the group consisting of:

(i) the nucleotide sequence of SEQ ID NO:1;

(ii) a nucleotide sequence which encodes a polypeptide consisting of the amino acid sequence of SEQ ID NO:2;

(iii) a nucleotide sequence which encodes a polypeptide that is 90% identical to the amino acid sequence of SEQ ID NO:2; and

(iv) a fragment of a nucleotide sequence of (i), (ii), or (iii); or

introducing a test molecule to a system which comprises a protein encoded by a nucleotide sequence of (i), (ii), (iii), or (iv); and

(b) determining the presence or absence of an interaction between the test molecule and the nucleic acid or protein,

whereby the presence of an interaction between the test molecule and the nucleic acid or protein identifies the test molecule as a candidate therapeutic for fat reduction.

2. The method of claim 1, wherein the system is an animal.

3. The method of claim 1, wherein the system is a cell.

4. The method of claim 1, wherein the PLA2G1B nucleotide sequence comprises a guanine at position 7328, a thymine at position 9182, or a guanine at position 7328 and a thymine at position 9182.

5. A method for reducing fat deposition in a subject, which comprises administering a candidate therapeutic of claim 1 to a subject in need thereof, whereby the candidate therapeutic reduces fat deposition in the subject.

6. A method for reducing fat deposition in a subject, which comprises contacting a PLA2G1B nucleic acid with one or more cells of a subject in need thereof, wherein the PLA2G1B nucleic acid comprises a nucleotide sequence selected from the group consisting of:

(a) the nucleotide sequence of SEQ ID NO:1;

(b) a nucleotide sequence which encodes a polypeptide consisting of the amino acid sequence of SEQ ID NO:2;

(c) a nucleotide sequence which encodes a polypeptide that is 90% identical to the amino acid sequence of SEQ ID NO:2; and

(d) a fragment of a nucleotide sequence of (a), (b), or (c);

whereby contacting the one or more cells of the subject with the PLA2G1B nucleic acid reduces fat deposition.

7. A method for reducing fat deposition in a subject, which comprises contacting a PLA2G1B protein with one or more cells of a subject in need thereof, wherein the PLA2G1B protein is encoded by a PLA2G1B nucleotide sequence which comprises a polynucleotide sequence selected from the group consisting of:

(a) the polynucleotide sequence of SEQ ID NO:1;

(b) a polynucleotide sequence which encodes a polypeptide consisting of the amino acid sequence of SEQ ID NO:2;

(c) a polynucleotide sequence which encodes a polypeptide that is 90% identical to the amino acid sequence of SEQ ID NO:2; and

(d) a fragment of a polynucleotide sequence of (a), (b), or (c);

whereby contacting the one or more cells of the subject with the PLA2G1B protein reduces fat deposition.

8. A method for reducing fat deposition in a subject, which comprises:

detecting the presence or absence of a polymorphic variant associated with fat deposition in a PLA2G1B nucleotide sequence in a nucleic acid sample from a subject, wherein the PLA2G1B nucleotide sequence comprises a polynucleotide sequence selected from the group consisting of:

(a) the polynucleotide sequence of SEQ ID NO:1;

(b) a polynucleotide sequence which encodes a polypeptide consisting of the amino acid sequence of SEQ ID NO:2;

(c) a polynucleotide sequence which encodes a polypeptide that is 90% identical to the amino acid sequence of SEQ ID NO:2; and

(d) a fragment of a polynucleotide sequence of (a), (b), or (c); and

administering a treatment that reduces fat deposition to a subject from whom the sample originated where the presence of a polymorphic variation associated with fat reduction is detected in the PLA2G1B nucleotide sequence.

9. The method of claim 8, wherein the polymorphic variant is a guanine at position 7328, a thymine at position 9182, or a guanine at position 7328 and a thymine at position 9182.

10. The method of claim 8, wherein the treatment is one or more selected from the group consisting of an appetite suppressant, a lipase inhibitor, a phospholipase inhibitor, an exercise regimen, a dietary regimen, psychological consoling, psychotherapy, and a psychotherapeutic.

11. A method for reducing fat deposition in a subject, which comprises administering to a subject a molecule that inhibits a PLA2G1B polypeptide in the digestive tract of the subject, whereby inhibition of the PLA2G1B polypeptide in the digestive tract of the subject reduces fat deposition in the subject.

12. A method for reducing fat deposition in a subject, which comprises administering to a subject a molecule that inhibits a PLA2G1B polypeptide, wherein the subject does not experience significant steatorrhea after the molecule is administered, whereby inhibition of the PLA2G1B polypeptide reduces fat deposition in the subject.

13. A method for reducing fat deposition in a subject, which comprises administering to a subject a molecule that inhibits a PLA2G1B polypeptide, wherein the molecule induces less steatorrhea in subjects as compared to steatorrhea caused in subjects by a lipase inhibitor, whereby inhibition of the PLA2G1B polypeptide reduces fat deposition in the subject.

14. A method for identifying a candidate therapeutic for alleviating NIDDM, which comprises:

(a) introducing a test molecule to a system which comprises a nucleic acid comprising a PLA2G1B nucleotide sequence selected from the group consisting of:

(i) the nucleotide sequence of SEQ ID NO:1;

(ii) a nucleotide sequence which encodes a polypeptide consisting of the amino acid sequence of SEQ ID NO:2;

(iii) a nucleotide sequence which encodes a polypeptide that is 90% identical to the amino acid sequence of SEQ ID NO:2; and

(iv) a fragment of a nucleotide sequence of (i), (ii), or (iii); or

introducing a test molecule to a system which comprises a protein encoded by a nucleotide sequence of (i), (ii), (iii), or (iv); and

(b) determining the presence or absence of an interaction between the test molecule and the nucleic acid or protein,

whereby the presence of an interaction between the test molecule and the nucleic acid or protein identifies the test molecule as a candidate therapeutic for treating NIDDM.

15. The method of claim 14, wherein the system is an animal.

16. The method of claim 14, wherein the system is a cell.

17. The method of claim 14, wherein the PLA2G1B nucleotide sequence comprises a cytosine at position 7256 of SEQ ID NO:1.

18. A method for treating NIDDM in a subject, which comprises administering a candidate therapeutic of claim 14 to the subject in need thereof, whereby the candidate therapeutic treats NIDDM in the subject.

19. A method for alleviating NIDDM in a subject, which comprises contacting a PLA2G1B nucleic acid with one or more cells of a subject in need thereof, wherein the PLA2G1B nucleic acid comprises a nucleotide sequence selected from the group consisting of:

(a) the nucleotide sequence of SEQ ID NO:1;

(b) a nucleotide sequence which encodes a polypeptide consisting of the amino acid sequence of SEQ ID NO:2;

(c) a nucleotide sequence which encodes a polypeptide that is 90% identical to the amino acid sequence of SEQ ID NO:2; and

(d) a fragment of a nucleotide sequence of (a), (b), or (c);

whereby contacting the one or more cells of the subject with the PLA2G1B nucleic acid alleviates NIDDM.

20. A method for alleviating NIDDM in a subject, which comprises contacting a PLA2G1B protein with one or more cells of a subject in need thereof, wherein the PLA2G1B protein is encoded by a PLA2G1B nucleotide sequence which comprises a polynucleotide sequence selected from the group consisting of:

(a) the polynucleotide sequence of SEQ ID NO:1;

(b) a polynucleotide sequence which encodes a polypeptide consisting of the amino acid sequence of SEQ ID NO:2;

(c) a polynucleotide sequence which encodes a polypeptide that is 90% identical to the amino acid sequence of SEQ ID NO:2; and

(d) a fragment of a polynucleotide sequence of (a), (b), or (c);

whereby contacting the one or more cells of the subject with the PLA2G1B protein alleviates NIDDM.

21. A method for alleviating NIDDM in a subject, which comprises:

detecting the presence or absence of a polymorphic variant associated with NIDDM in a PLA2G1B nucleotide sequence in a nucleic acid sample from a subject, wherein the PLA2G1B nucleotide sequence comprises a polynucleotide sequence selected from the group consisting of:

(a) the polynucleotide sequence of SEQ ID NO:1;

(b) a polynucleotide sequence which encodes a polypeptide consisting of the amino acid sequence of SEQ ID NO:2;

(c) a polynucleotide sequence which encodes a polypeptide that is 90% identical to the amino acid sequence of SEQ ID NO:2; and

(d) a fragment of a polynucleotide sequence of (a), (b), or (c); and

administering a treatment that alleviates NIDDM to a subject from whom the sample originated where the presence of a polymorphic variation associated with NIDDM is detected in the PLA2G1B nucleotide sequence.

22. The method of claim 21, wherein the polymorphic variant is a cytosine at position 7256 of SEQ ID NO:1.

23. The method of claim 21, wherein the treatment is one or more selected from the group consisting of insulin, a hypoglycemic, a starch blocker, a liver glucose regulating agent, an insulin sensitizer, a glucose level monitoring regimen, dietary counseling, and a dietary regimen for managing blood glucose levels.